SIR DOUGLAS MAWSON, 1882-1958.

(Memorial Series, No. 17.)

(With Portrait, Plate xxiii.)

Douglas Mawson was a personality and indeed a very inspiring one. A naval colleague of his in conversation many years ago said that no one in polar exploration, arctic or antarctic, had ever before gone into such detail and taken so much care in fitting out his expeditions as Mawson had done. Moreover, as was written of one who lost his life in the antarctic, he was indeed a very gallant gentleman. He was elected a member of our Society in 1905, became an Honorary Life Member in 1951, and at the time of his death on October 14, 1958, was its second oldest member.

Mawson was born at Bradford in Yorkshire on May 5, 1882, of sturdy yeoman stock on his father's side. His mother came from the Isle of Man, and so he was called Douglas. He was very proud of his Manx ancestry, and thus, when his inherited farming interests led him to pasture sheep on his property, Harewood near Kuitpo, he chose the Manx three-legged emblem as his brand. He came to Sydney as a child with his parents whose venture in farming was not successful. As a small child a two-mile walk to school probably helped to build up his stamina, to be shown in later years.

He was educated at the Fort Street School, Sydney. At the University of Sydney he took his B.E., Mining, in 1901. He became a demonstrator in chemistry in 1902, carried out geological investigations in the New Hebrides in 1903, obtained his B.Sc. in 1904, and was appointed lecturer in mineralogy and petrology at the University of Adelaide in 1905. In 1909 he took his D.Sc. in Adelaide. In 1907 he was invited to join the Shackleton Antarctic Expedition as physicist, and was one of those who made the first ascent of Mt. Erebus. With Professor T. W. Edgeworth David and Dr. A. F. Mackay, he located the South Magnetic Pole, his physique and common sense contributing materially to the safety of his companions. The Australasian Association for the Advancement of Science supported his suggestion for an expedition to explore the unknown portions of the Antarctic continent, and early in 1911 he went to England to make arrangements for the voyage under Captain John King Davis. Aurora was fitted out and she sailed from Hobart on December 2.

Anyone reading "The Home of the Blizzard" will see in its modestly written pages, with poetic description here and there, the type of man that Mawson was. No wonder that he had attracted to his expedition the finest set of young men available as colleagues in a great adventure. Captain Davis in command of Aurora was a tower of strength. In perils at sea, icebergs, the closing in of icefields and hurricanes, in perils on land, crevasses innumerable, avalanches, blizzards and blinding snow; in constant danger from losing their way, from exhaustion, starvation, frost-bite and snowblindness; endless hours of meditation in tents waiting for the merciless winds to abate-such were the experiences of these devoted men. Every item of food had been assessed in real value and weight, every article of equipment tested in every way. The objects of the Expedition were entirely scientific—meteorological, geographical, physical and biological—and there was throughout no attempt at spectacular glamour. While the other parties, though in constant jeopardy, eventually returned safely to the Base, Mawson was the sole survivor of his, Ninnis with his sledge and dogs having lost his life in a crevasse, and Mertz in spite of his stamina and cheerfulness dying beside Mawson in the tent from exhaustion and starvation. A supreme effort and his magnificent physique and, one may add with all reverence, the intervention of Providence, enabled Mawson to stumble over the remaining hundred miles alone-to reach the Base seven hours after Aurora had sailed! There is no evidence in his writing of the grievous disappointment this must have been. One is reminded of the tragedy of the survivors of the Burke and Wills Expedition on the Cooper, a Central Australian type of country with which in after years Mawson was very familiar, where a few hours again meant so much. Mawson, with the relief party left behind, returned to Australia in the summer of 1914 and received the well-deserved honour of knighthood.

The outbreak of the First World War in 1914 held up the publication of the results, but eventually these were completed and, under the heading "Australasian Antarctic Expedition, 1911–1914", comprised 22 volumes in 3 series.

During the war Mawson was commissioned as a staff officer, his main duty being concerned with the supply of munitions to the various fronts. Mawson received the O.B.E. for work done in 1915–18 in connection with the International Commission supplying allied countries with munitions. He was at first attached to the Russian section of the Commission. After the Russian debacle he was appointed, with rank of major, to the International Commission of Armament in London in charge of explosive and chemical supplies to allied countries. He had to visit many of the factories supplying these materials.

In 1920 Mawson was elevated to the Chair of Geology and Mineralogy in the University of Adelaide. This entailed the rearrangement of courses and necessarily considerable teaching. However, he found time for much field work, on foot, by camel, in buggies and finally by motor truck. Whenever possible students accompanied him, for them a most rewarding time. Its wealth of minerals attracted him to Broken Hill where he recognized two divisions of the Precambrian Rocks of the region. His Antarctic experience made him very interested in glaciation and he found that the Proterozoic glacial beds which Professor Howchin had found in the bed of the Sturt River near Adelaide had a wide distribution and so were of great importance. The discovery of uranium ores at Radium Hill and at Mt. Painter in the north-east extremity of the Flinders Range attracted him at once to these localities and here he again found Proterozoic sediments and glacial beds. Over many years he made field trips to the uranium deposits and the Flinders Range in general. He published a series of papers on his results which form a valuable contribution to the stratigraphy of Australia and also indicate the wide extent and the long duration of the Proterozoic glaciation. Mawson was also interested in the activities of algae from the geological point of view and in the origin of carbonaceous sediments.

Fifteen years after Mawson's return from the Expedition of 1911–14 the Antarctic was still calling him. He organized the British Australian New Zealand Antarctic Research (BANZARE) Expeditions of 1929–30 and 1930–31, visits to the Antarctic Continent during the summer period. With specialists aboard in various fields, a wealth of scientific information was obtained. It is perhaps hardly realized what an abundance of lowly forms of life exist in the cold waters of the Antarctic, a riot of life perhaps greater than that of tropical seas, and sustaining indirectly the bulky forms of whales, sea-elephants, sea-leopards and seals, the vast colonies of courtly penguins, the elegant forms of snow and Antarctic and other petrels such as the dappled cape pigeons, and on the islands near by stately albatrosses. The results of these expeditions have not yet been fully completed.

Douglas Mawson's tall and commanding presence suggesting a Viking ancestry made him noteworthy in any gathering. He and Lady Mawson were indeed a remarkable couple. As a geologist alone he made a name for himself, reflected in the full Bibliography of his papers published by the Royal Society of South Australia. His scientific work in the Antarctic and his leadership there brought him well-deserved fame. But he had many other avenues of activity. Thus he was appointed Honorary Curator of Mineralogy at the South Australian Museum in 1908, in 1934 he represented the Royal Society of South Australia on the Board of Governors of the Public Library, Museum and Art Gallery, in 1940 when the Museum became a Government Department he was appointed a member of the Museum Board, and in 1951 he became the very efficient Chairman of that Board. His interest in forestry helped the South Australian

Conservators of Forests in the earlier days when difficulties innumerable were encountered before the forests began to pay their way. He bought about 1,200 acres of land near the State Forest of Kuitpo and cleared the land, a sawmill making use of the native red-gum timber. Part was laid down to pasture and part to pines and ornamental trees. (Thomas Mawson was a well-known landscape gardener in England.) Here he worked hard, his staunch yeoman ancestry asserting itself in his love for the soil. His planning and attention to detail here, as in the Antarctic, brought their own rewards. He also was the leading figure in several commercial interests in trees.

Mawson was married in 1914, after his return from the Antarctic, to Paquita, the pet name of Francisca Adriana, youngest daughter of Guillaume Delprat, General Manager of the Broken Hill Proprietary Limited. The elder of their two daughters, Patricia, married Ifor Thomas, now Lecturer in Zoology in the University of Adelaide; the younger, Jessica, Peter McEwin of Glen Lindsay, Hindmarsh Valley. Both have offspring to carry on the traditions of capacity and leadership manifested by their forebears.

Mawson was knighted in 1914, receiving the accolade from His Majesty King George V during his honeymoon in London. He was awarded the O.B.E. in 1920. He was elected a Fellow of the Royal Society in 1923 and of the Geological Society of London in 1918, receiving its Bigsby Medal in 1919. He was President of the Australasian Association for the Advancement of Science in 1935–37 and of the Royal Society of South Australia in 1924–25 and in 1944–45, receiving the Verco Medal in 1931. He was a Foundation Member of the Australian Academy of Science, of which he was for a time a Vice-President. Other honours conferred on him included Royal Geographical Society's Antarctic Medal, 1909, and Founder's Medal, 1915; King's Polar Medal (3 bars); Gold Medals of the American. Chicago and Paris Geographical Societies; Nachtigal Gold Medal of Gesellschaft für Erdkunde, Berlin, 1928; Mueller Memorial Medal of Australasian Association for the Advancement of Science, 1930; Founder's Medal of the Royal Geographical Society of Australia (Queensland), 1931; Order of SS. Maurice and Lazarus of Italy, 1920; Commander of Order of Crown of Italy, 1923.

The Mawson's home at Brighton, a seaside suburb of Adelaide, though close to the sea, was so protected from the breezes that a delightful garden was established. Here were entertained from time to time such polar notabilities, geographers and geologists of note and lesser scientific lights as happened to pass through Adelaide on their several occasions. Amongst them may be mentioned Stefansson, Wilkins, W. H. Hobbs, Paul Siple, Lord Novar, Caldenius, Baas Becking, Lester King, E. C. Abendanon, G. Gaylord Simpson, H. L. Movius. On Lady Mawson's side, distinguished Dutch guests were similarly welcomed. Sir Edgeworth David, under whose spell Mawson had come as a student, and who in the Shackleton Expedition owed his survival to Mawson, was a frequent visitor.

Mawson was primarily responsible for getting Great Britain to annex and to hand to Australia the Australian Sector of Antarctica which comprises about 2,472,000 out of the 5,000,000 square miles of that Continent.

He named King George V Land and Queen Mary Land (1911-14) and Kemp Land and MacRobertson Land and confirmed Enderby Land (1929-30). Princess Elizabeth Land, Sabrina Coast, Banzare Coast and Wilkes Coast were named in 1930-31.

Mawson, the important meteorological station on the Antarctic Continent, was so named by the Commonwealth of Australia in 1954. In May, 1919, the Mount Field National Park Board in Tasmania named a mountain within its territory after Sir Douglas. Mt. Mawson is 4,300 feet high, more than 100 feet higher than Mt. Wellington near Hobart. In 1958 a shelter hut was built on it and named "Mawson Hut".

A full Bibligraphy of the writings by Sir Douglas, comprising 123 items, has been published in the *Transactions of the Royal Society of South Australia* in April, 1959 (Vol. 82, pp. 2-6), to which Transactions he contributed no less than 50 papers, the first

in 1906 and the last in 1958, and two more to its Memoirs. He made two contributions to this Society, one in 1905 on "The Geology of the New Hebrides", and the second in 1906 on "The Minerals and Genesis of the Veins and Schlieren Traversing the Aegirine-Syenite in the Bowral Quarries". Besides the Royal Society of South Australia, the sister Royal Societies of Tasmania (the oldest), New South Wales and Victoria published papers by him. In 1935 he contributed the Obituary Notice of Sir Edgeworth David to the Royal Society of London. Similarly, to the Proceedings of the Geological Society of London, he wrote the Obituary Notices in 1938 of Charles Chewings of the MacDonnell Ranges fame, and of Professor Walter Howchin, his predecessor in the Chair at Adelaide. His second paper, published in 1904, was a note on the Geology of the New Hebrides, and in 1957, in the third from last of his writings, he returned again to notes made when he visited these islands at the commencement of his career in a paper appearing in the "Records of the South Australian Museum" entitled "Knee Moulded Pots from the New Hebrides". His interest in radioactivity, shown so strikingly in later years, began early in his career, for in 1904 with Professor Laby he published in the Proceedings of the Royal Society of New South Wales "Preliminary Observations on Radioactivity and the Occurrence of Radium in Australian Minerals". His Commemoration Address to the University of Adelaide in 1925 was on "Some Aspects of Forestry in South Australia". The "Home of the Blizzard" was published in two volumes in 1915 and an abridged and revised edition in one volume in 1931.

Mawson retired from his Chair at the end of 1952, but not from his many activities. Lady Mawson, engaged in writing the life of her father which found expression in "A Vision of Steel", had difficulty in curbing and controlling a mind still finding much of moment to accomplish but set in a body with commencing infirmities. The latter were indignantly minimized, but occasionally Lady Mawson got the upper hand and kept him at home from a meeting. As Chairman of the South Australian Museum Board he attended his last meeting on September 9, 1958. In August he took part in the deliberations of the Council of the Australian and New Zealand Association for the Advancement of Science in Adelaide. In October he lapsed gradually into unconsciousness and died peacefully on October 14, 1958.

The Federal Government asked permission to accord him a Commonwealth State Funeral. At this the Governor-General was represented as well as the Federal and State Governments. The Lieutenant-Governor and Chancellor of the University, Sir Mellis Napier, the Premier, Sir Thomas Playford, the Deputy Chancellor and the Vice-Chancellor of the University and many other distinguished citizens were present. The service included Mawson's favourite and singularly appropriate hymn "Rock of Ages". At the impressive ceremony held later in the Cathedral, under the auspices of the University of Adelaide, a fine address was delivered by the Bishop. Thus a great explorer and leader and man of science was laid to rest in a corner of the old Church of England Cemetery at Brighton.

"Is not short paine well borne, that bringes long ease
And layes the soul to sleepe in quiet grave?
Sleepe after toyle, port after stormie seas,
Ease after warre, death after life, does greatly please."

J.B.C.

APPENDIX.

A complete list of the books and papers written by Sir Douglas Mawson has been published in the *Transactions of the Royal Society of South Australia*, Volume 82, 1959, pages 2-6.

In biological literature his name is honoured by the generic names *Mawsonella* and *Mawsonia*, and the specific name *mawsoni* has been given, by various workers, to more than sixty species representative of most of the major groups of invertebrates as well as a few fishes, lichens and algae.

The following are the details of the publication of the scientific results of his two Antarctic expeditions:

Australasian Antarctic Expedition, 1911-1914. Scientific Reports.

Series A. Geology. Volumes 1-5.

Series B. Meteorology and terrestrial magnetism, etc. Volumes 1-7.

Series C. Biology. Volumes 1-10.

This completes the Scientific Reports.

British, Australian and New Zealand Antarctic Research Expedition, 1929-1931. Reports.

Series A. Vol. I (in preparation). Vol. II, Parts 1-8. Vol. III, Parts 1-2. Vol. IV, Part 1 (Part 2 in preparation). (Other Reports, including Glaciology, are also in preparation.)

Series B. Vols I (Parts 1-4), II, III, IV (Parts 1-10), V (Parts 1-6), VI (Parts 1-14), VII, VIII (Part 1; Parts 2-4 in press). About 15-20 more parts will be published.